

below the widest point with sharply acute antrorse and slightly divergent teeth, or the uppermost ones oblong and entire, rather sparsely appressed-pubescent or strigose on both surfaces; the slender midrib and 6--8 secondaries subimpressed above and prominent beneath; larger parts of the veinlet reticulation often also subimpressed above and prominulous beneath; inflorescence terminal and in the uppermost axils, spicate; peduncles resembling the uppermost parts of the stem and branches in all respects, 1--7 cm. long, pilose; floriferous portion of the spikes short and very dense-flowered, 2--6 cm. long, conspicuously bracteate; bracts oblong-lanceolate, about 5 mm. long, acuminate, ciliolate-pilosulous, or the lowest pair to 2 cm. long and 3 mm. wide; calyx about 4 mm. long, strigose-pilosulous, 5-costate, 5-apiculate; corolla-tube barely surpassing the calyx, its limb about 1.5 mm. wide.

The type of this species was collected by Henry Hurd Rusby (no. 911) at Sorata, at an altitude of 8000 feet, La Paz, Bolivia, in February, 1886, and is deposited in the Columbia University Herbarium at the New York Botanical Garden. The species is named in honor of Miguel Bang, who collected so extensively in Bolivia for Dr. Rusby. The species resembles V. litoralis H.B.K. in general habit, while its inflorescences resemble those of V. hispida Ruiz & Pav.

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A NEW SPECIES OF COSMIBUENA FROM GUATEMALA

Joseph V. Monachino

COSMIBUENA HOLDRIDGEI Monachino, sp. nov.

Arbor, foliis glabris; petiolis 2--3.5 cm. longis; laminis foliorum ovalibus 8--12 cm. longis, 3.5--6.5 cm. latis, ad basin acutis, ad apicem obtusis et abrupte breviterque acuminatis; nervis lateralibus prominulis 8--12-jugis; inflorescentiis cymosis trifloris; parte libera tubi calycis ca. 2 mm. longa, lobis calycis lineari-lanceolatis rigidis 3--6 mm. longis; lobis corollae glabris epapillosis; stylo glabro.

Small glabrous tree; stipules oval, rounded at apex; petioles 2--3.5 cm. long; blades oval, 8--12 cm. long, 3.5--6.5 cm. broad, narrowed into the petiole at base, obtuse at apex and somewhat abruptly short-acuminate with a broad acumen about 5 mm. long, subcoriaceous, lustrous above, paler beneath, the lateral nerves prominulous, close, 8--12 pairs, ascending; inflorescences cymose, 3-flowered (in type); peduncles short, up to 1 cm. long; pedicels about 1.5 cm. long; calyx tapering into the pedicel, the adherent portion about 1 cm. long, the free

calyx-tube short, about 2 mm. long, the calyx-lobes linear-lanceolate, 3-6 mm. long, rigid, somewhat spreading; corolla-tube 7.5 cm. long; corolla-lobes oval, 3-3.5 cm. long, about 1.8 cm. broad, obtuse to subacute at apex, glabrous, not papillose (very faintly papillose on margins at base); anthers about 2 cm. long; style glabrous.

Type: L. R. Holdridge s.n. (Monachino 519), Guatemala, Barillas to Tokija, July 1948, deposited in the Britton Herbarium at the New York Botanical Garden. The specimen was collected by Dr. Holdridge and submitted for my examination by Mr. B. A. Krukoff who furnished the data.

The only other species of Cosmibuena known from Central America are C. Skinneri (Cerst.) Hemsl. and C. paludicola Standley. C. ovalis Standley is a synonym of C. Skinneri, as I have ascertained from examination of the type collections.

C. Holdridgei is easily distinguished from C. Skinneri and C. paludicola by its glabrous style and glabrous corolla-lobes, the two latter species having the upper portion of the style densely hirsute and the corolla-lobes markedly papillose within at least toward the base. Whereas the leaves of C. paludicola are rounded at the apex, those of C. Skinneri are abruptly short-acuminate, as in the present novelty, which it further resembles in the lustrousness of the upper surface of its leaves; but the lateral nerves of C. Skinneri are more distantly spaced and fewer in number (5-8 pairs).

In its glabrous style C. Holdridgei is more closely allied to the widely distributed C. grandiflora (R. & P.) Rusby. Although variable in length, the free portion of the calyx-tube in the latter is never as short as in C. Holdridgei; the midrib on the underside of its leaves is frequently minutely hirtellous.

All the other described species of Cosmibuena are from South America, and herewith is presented a list of these:

- C. acuminata Ruiz & Pav. = Hillia parasitica Jacq. See Standley, Field Mus. Nat. Hist. Bot. 13: 48. 1936.
- C. arborea Standley = C. grandiflora. See Standley, Field Mus. Nat. Hist. Bot. 7: 23. 1930.
- C. GARDENIODES Wernh. Cauca, Colombia. Said to be "related to C. grandiflora but readily distinguished by the much shorter corolla....Corolla-tube barely 4 cm. long." The corolla-tube of the type of C. macrocarpa is about 5 cm. long. There is considerable variation in the length of the corolla-tube in the genus.
- C. gorgonensis Wernh. = C. macrocarpa. See Standley, Field Mus. Nat. Hist. Bot. 7: 24. 1930.
- C. GRANDIFLORA (R. & P.) Rusby. The most common and widely distributed South American species -- British Guiana, Venezuela, Colombia, Peru, Bolivia. In Fl. Peru. 3 (1802) 226 two

- species are described under Cosmibuena, C. obtusifolia and C. acuminata. The former is a synonym of C. grandiflora, the type species of the genus. Standley, in N. Am. Fl. 32 (1921) 115, cited C. acuminata as the type species, but this species does not belong in Cosmibuena (as can readily be seen from the original illustration). First described in 1799 by Ruíz and Pavón as Cinchona grandiflora, the type species was subsequently recognized by them as belonging to Cosmibuena, although they failed to make the proper transfer.
- C. latifolia Klotzsch ex Walp. = C. grandiflora. See Standley, Field Mus. Nat. Hist. Bot. 7: 23. 1930.
- C. MACROCARPA (Benth.) Klotzsch ex Walp. Gorgona Island, Colombia. Style hirsute.
- C. obtusifolia Ruíz & Pav. = C. grandiflora. The specific epithet obtusifolia was substituted for the earlier grandiflora by Ruíz and Pavón.
- C. obtusifolia var. latifolia (Benth.) Hook. f. = C. grandiflora. See Standley, Field Mus. Nat. Hist. Bot. 7: 23. 1930.
- C. ochracea Endl. = Ladenbergia hexandra (Pohl) Klotzsch.
- C. quinquefolia Klotzsch = C. grandiflora. See Standley, Field Mus. Nat. Hist. Bot. 7: 366. 1931.
- C. RHIZOPHORAE Standley. El Valle, Colombia. Leaf-blades 3--5 cm. long, 2--3.5 cm. broad.
- C. triflora (Benth.) Klotzsch = C. grandiflora, probably. Iso-type at the New York Botanical Garden.

There is justification for conserving the rubiaceous genus Cosmibuena Ruíz & Pavón of Fl. Peru. 3 (1802) 3, although the case in favor of this is not very good. The earlier Cosmibuena of Ruíz and Pavón of Prod. Fl. Peru. (1794) 10 is a synonym of Hirtella L. (Rosaceae). Notwithstanding the fact that of the two species described under the 1802 genus one belongs in Hillia, a close relative of Cosmibuena, the given combination of generic characters defines the genus fairly well. Furthermore, the earlier of the two species, the type species, which furnished the seed character, is unmistakably a Cosmibuena. The Buena published by Pohl in 1827 to substitute for Cosmibuena R. & P. Fl. Peru. sed non Prodr., has been referred principally to Ladenbergia (1846), to which belongs B. hexandra, the only species of Buena described by Pohl. Regardless of this disposition, the nomenclatural type of Pohl's genus is based on Cosmibuena R. & P. of 1802. However, Buena Pohl is also a later homonym, antedated by Buena Cavanilles (Anal. Hist. Nat. Madrid 2: 278, pl. 23. 1800), a synonym of Gonzalagunia R. & P. (Fl. Peru. Prodr. 12, pl. 3. 1794). If Cosmibuena R. & P. (1802) is not conserved it will be necessary to propose a new generic name for the group and make approximately seven specific transfers.